

JUN 05 2006

AMENDMENTS IN THE CLAIMS

1. (currently amended) In a data processing system having a central processing unit, and memory, at least one user output device, and a user input device, a method for retrieving and presenting stored documents on a plurality of one or more output devices that each requiring requires device-specific different presentation parameters, said method comprising the steps of:

parsing a document into one or more subcomponents, said subcomponents collectively representing the document when compiled for output to a presentation device, wherein each of said one or more subcomponents have a determinable presentation complexity objects;

parsing each object into one or more units;

classifying identifying one or more a plurality of presentation devices to which the document may be outputted, said identifying including determining a presentation format supported by each of the one or more presentation devices;

for each subcomponent unit, determining whether the subcomponent unit is complex based on an amount of data processing required to convert said subcomponent from device-independent format unit to device-dependent format, wherein the subcomponent is determined to be a complex subcomponent if the subcomponent requires more than a predetermined amount of processing to convert from the device-independent format to the device-dependent format;

converting a copy of each complex subcomponent into a device-dependent format corresponding to the presentation format supported by each specific device of the one or more presentation devices for which the subcomponent is determined to be complex, wherein when multiple presentation devices are identified by the data processing system for completing subsequent presentations, multiple copies of the complex subcomponent are generated and converted into a specific presentation format supported by each of the multiple presentation devices;

storing, in device-independent format, each said subcomponent that is not determined to be a complex subcomponent as a non-complex subcomponent, wherein said non-complex subcomponent requires unit, requiring less data processing to convert to said device-dependent format than the predetermined amount of data processing required for the complex subcomponent, in device-independent format;

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storing said complex subcomponents units, requiring more data processing to convert to said device-dependent format, in said device-independent format and each of said device-dependent formats associated with the identified presentation devices, wherein multiple copies of the complex subcomponent are stored with a first copy being stored in device-independent format and each other copy being stored in a format supported by based on the respective classified plurality of presentation devices;

~~receiving a request from a presentation device of the plurality of presentation devices;~~
~~assembling said document from said stored units;~~ and
~~sending said assembled document to said presentation device.~~

2. (currently amended) The method of claim 1, further comprising:

when a request is received to output a copy of the document to a selected one of the multiple presentation devices, identifying the selected presentation device and the format supported by that selected presentation device;

assembling said document from said stored non-complex subcomponents and specific device-dependent copy of the complex subcomponents that are stored in the format supported by that selected presentation device; and

sending the non-complex and specific device-dependent copy of the complex subcomponents of the assembled document to said presentation device, wherein the selected presentation device does not have to convert complex subcomponents within the document into device-dependent format during an actual presentation period and overall processing time involved with document output on the presentation device is substantially reduced.

wherein parsing each object into one or more units, further comprises:

determining type of each said unit.

3. (previously canceled)

4. (currently amended) The method of claim 1, wherein classifying identifying said connected presentation devices, further comprise:

determining acceptable document formats for said connected presentation devices; and
classifying said devices according to device-dependent characteristics.

5. (currently amended) The method of claim [[1]] 2, further comprising:
wherein receiving a request from [[said]] a peripheral presentation device for said target document, further comprises:

determining whether said peripheral presentation device is known or unknown, wherein said peripheral presentation device is known if the peripheral presentation device is one of the one or more presentation devices identified in said identifying step and which has a copy of the complex subcomponents stored in the format supported by that peripheral presentation device;
and

when the device is not known, completing the determining and converting steps prior to forwarding the subcomponents for generating the document to the peripheral presentation device.

6. (previously presented) In a data processing system having a central processing unit, memory, at least one user output device, and a user input device, a system for retrieving and presenting stored documents on a plurality of output devices each requiring different presentation parameters, comprising:

logic means for parsing a document into one or more objects;
means for parsing each object into one or more units;
discrimination means for classifying a plurality of presentation devices;
for each unit, means for determining whether the unit is complex based on an amount of data processing required to convert said unit to device-dependent format;
means for storing said units, requiring less data processing to convert to said device-dependent format, in device-independent format;
means for storing said units, requiring more data processing to convert to said device-dependent format, in said device-dependent format;
receiving means for receiving a request from a presentation device of the plurality of presentation devices;
logic means for assembling said document from said stored units; and
transmitting means for sending said assembled document to said presentation device.

7. (previously presented) The system of claim 6, wherein logic means for parsing each object into one or more units, further comprises:

comparison means for determining a type of each said unit.

8. (previously canceled)

9. (previously presented) The system of claim 6, wherein discrimination means for classifying said connected presentation devices, further comprise:

comparison means for determining acceptable document formats for said connected presentation devices; and

classification means for classifying said devices according to device-dependent characteristics.

10. (previously presented) The system of claim 6, wherein receiving means for receiving a request from said peripheral presentation device for said target document, further comprises:

means for determining whether said device is known or unknown.

11. (currently amended) In a data processing system having a central processing unit[[],] and memory, at least one user output device, and a user input device, a computer program product within on a computer readable medium having instructions for storing, retrieving and presenting stored documents on a plurality of one or more output devices that each requiring different presentation parameters, said program product comprising the steps of:

instructions within said computer program product for parsing a document into one or more objects; and

instructions within said computer program product for parsing each object into one or more units, said units collectively representing the document when compiled for output to a presentation device, wherein each of said one or more units have a determinable presentation complexity;

instructions within said computer program product for classifying identifying one or more a plurality of presentation devices to which the document may be outputted, said

identifying including determining a presentation format supported by each of the one or more presentation devices;

for each unit, instructions for determining whether [[a]] the unit is complex based on an amount of data processing required to convert said unit from device-independent format to device-dependent format, wherein the unit is determined to be a complex unit if the unit requires more than a predetermined amount of processing to convert from the device-independent format to the device-dependent format;

instructions within said computer program product for converting a copy of each complex unit into a device-dependent format corresponding to the presentation format supported by each specific device of the one or more presentation devices for which the unit is determined to be complex, wherein when multiple presentation devices are identified by the data processing system for completing subsequent presentations, multiple copies of the complex unit are generated and converted into a specific presentation format supported by each of the multiple presentation devices;

instructions within said computer program product for storing, in device-independent format, each said unit that is not determined to be a complex unit as a non-complex unit, wherein said non-complex unit requires, requiring less data processing to convert to said device-dependent format than the predetermined amount of data processing required for the complex unit, in device-independent format;

instructions within said computer program product for storing said complex units, requiring more data processing to convert to said device-dependent format, in said device-independent format and each of said device-dependent formats associated with the identified presentation devices, wherein multiple copies of the complex subcomponent are stored with a first copy being stored in device-independent format and each other copy being stored in a format supported by the respective presentation devices;

instructions within said computer program product for receiving a request from a presentation device of the plurality of presentation devices;

instructions within said computer program product for assembling said document from said stored units; and

instructions within said computer program product for sending said assembled document to said presentation device.

12. (currently amended) The computer program product of claim 11, further comprising wherein instructions for parsing each object into one or more units, further comprises:

instructions within said computer program product for determining a type of each said unit identifying the selected presentation device and the format supported by that selected presentation device, when a request is received to output a copy of the document to a selected one of the multiple presentation devices;

instructions within said computer program product for assembling said document from said stored non-complex units and specific device-dependent copy of the complex units that are stored in the format supported by that selected presentation device; and

instructions within said computer program product for sending the non-complex and specific device-dependent copy of the complex units of the assembled document to said presentation device, wherein the selected presentation device does not have to convert complex units within the document into device-dependent format during an actual presentation period and overall processing time involved with document output on the presentation device is substantially reduced.

13. (previously canceled)

14. (currently amended) The computer program product of claim 11, wherein instructions for classifying identifying said connected presentation devices, further comprises:

instructions within said computer program product for determining acceptable document formats for said connected presentation devices; and

instructions within said computer program product for classifying said devices according to device-dependent characteristics.

15. (currently amended) The computer program product of claim 11, further comprising: wherein instructions for receiving a request from [[said]] a connected presentation device for said target document, further comprises:

instructions within said computer program product for determining whether said peripheral device is known or unknown, wherein said presentation device is know if the

presentation device is one of the one or more presentation devices identified in said identifying step and which has a copy of the complex unit stored in the format supported by that presentation device; and

instructions within the computer program product for completing the determining and converting steps prior to forwarding the units for generating the document to the presentation device, when the presentation device is not known.

16. (new) The computer program product of Claim 12, further comprising:

when the request is received, instructions within the computer program product for determining whether there are device-dependent copies of complex units previously generated and stored for that selected presentation device;

when no device-dependent copies have been generated and there are complex subcomponents identified within the document:

instructions within the computer program product for dynamically generating a device-dependent copy of the complex units in the format supported by the selected presentation device; and

instructions within the computer program product for storing the device-dependent copy of the complex unit generated for that selected presentation device.

17. (new) The computer program product of Claim 11, further comprising:

enabling user setting of a mode of processing and storage of documents from among a first mode and a second mode, wherein said first mode triggers a storage of complex units in both device-dependent and device-independent formats and the second mode stores all units in only device-independent format; and

triggering said automatic storage in device-dependent format only when said first mode is selected for processing, whereby subsequent presentations on the selected presentation device access the stored, device-dependent copies of the complex subcomponents to reduce presentation time.

18. (new) The method of Claim 2, further comprising:

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when the request is received, determining whether there are device-dependent copies of complex subcomponents previously generated and stored for that selected presentation device;

when no device-dependent copies of complex subcomponents have been generated and there are complex subcomponents identified within the document:

dynamically generating a device-dependent copy of the complex subcomponents in the format supported by the selected presentation device; and

storing the device-dependent copy of the complex subcomponents generated for that selected presentation device.

19. (new) The method of Claim 1, further comprising:

enabling user setting of a mode of processing and storage of documents from among a first mode and a second mode, wherein said first mode triggers a storage of complex subcomponents in both device-dependent and device-independent formats and the second mode stores all subcomponents in only device-independent format; and

triggering said automatic storage in device-dependent format only when said first mode is selected for processing, whereby subsequent presentations on the selected presentation device access the stored, device-dependent copies of the complex subcomponents to reduce presentation time.

20. (new) The method of Claim 1, wherein said parsing further comprises:

first parsing the document into one or more objects;

then parsing each object into one or more units, which represent the one or more subcomponents; and

determining a type of each of said subcomponents.